Claims

1. A liquid crystal display comprising a liquid crystal display panel which sandwiches a liquid crystal layer between a first substrate and a second substrate, a reflecting layer which is mounted on the first substrate and reflects light, and a multi-layered optical film which is mounted on the second substrate and is formed by laminating a polarizer and an optical retardation plate, wherein

members which constitute the multi-layered optical film are comprised of a first adhesive layer which adheres the polarizer and a first optical retardation plate, a second adhesive layer which adheres a second optical retardation plate and the first optical retardation plate, and a third adhesive layer which adheres the second optical retardation plate to the second substrate, and at least one layer among the first adhesive layer, the second adhesive layer and the third adhesive layer is formed of a light diffusion adhesive layer which mixes particles having a refractive index different from a refractive index of an adhesive agent into the adhesive agent.

2. A liquid crystal display according to claim 1, wherein an auxiliary light source for illuminating an upper surface of the liquid crystal display panel and an input device for inputting data are arranged over the multi-layered optical film.

3. A liquid crystal display according to claim 1, wherein color filter

films are provided to an inner surface of either one of the first substrate and the second substrate.

4. A liquid crystal display comprising a liquid crystal display panel which sandwiches a liquid crystal layer between a first substrate and a second substrate, a reflecting layer which is mounted on the first substrate and reflects light, and a light diffusing layer which is mounted on the second substrate, wherein the transmission spectral characteristics of a visible light region of the light diffusing layer is made to match the reflection spectral characteristics of a visible light region of the reflecting layer.

5. A liquid crystal display according to claim 4, wherein an auxiliary light source for illuminating an upper surface of a liquid crystal display panel and an input device for inputting data are arranged over the light diffusing layer.

6. A liquid crystal display according to claim 4, wherein color filter films are provided to an inner surface of either one of the first substrate or the second substrate.

7. A liquid crystal display which sandwiches a liquid crystal layer between a first substrate and a second substrate, mounts a second optical retardation plate on the second substrate, mounts a first optical retardation plate on the second optical retardation plate, and mounts a polarizer on the first optical retardation plate, wherein

assuming an orientation axis of the liquid crystal layer at the first substrate side as a first liquid crystal orientation axis and an orientation axis of the liquid crystal layer at the second substrate side as a second liquid crystal orientation axis, an angle made by an elongation axis of the second optical retardation plate and the second liquid crystal orientation axis is set in a range of 30 degrees to 80 degrees, an angle made by an elongation axis of the first optical retardation plate and the second liquid crystal orientation axis is set in a range of 60 degrees to 130 degrees, an angle made by an absorption axis of the polarizer and the second liquid crystal display orientation axis is set in a range of 70 degrees to 150 degrees, an angle made by the first liquid crystal orientation axis and the second liquid crystal orientation axis is set to not less than 240 degree, the retardation of the liquid crystal layer is set in a range of 0.7 μm to 0.95 μm, the retardation of the first optical retardation plate is set in a range of 130 nm to 250 nm, and the retardation of the second optical retardation plate is set in a range of 380 nm to 500 nm.

8. A liquid crystal display according to claim 7, wherein an auxiliary light source for supplying light to the light crystal layer and an input device for inputting data are arranged over the polarizer.

9. A liquid crystal display according to claim 7, wherein color filter films are provided to an inner surface of either one of the first substrate or the second substrate.